=> d his

(FILE 'HOME' ENTERED AT 09:16:59 ON 28 MAR 2007)

FILE 'REGISTRY' ENTERED AT 09:17:11 ON 28 MAR 2007

E SERTRALINE (L) MANDELATE

E SERTRALINE (L) MANDELATE/CN

L1 1 S E9

FILE 'CAPLUS' ENTERED AT 09:18:10 ON 28 MAR 2007

L2 18 S L1

L3 1041 S FORM V

L4 1 S L3 AND L2

=> d bib abs 1-18 12 kwic

L2 ANSWER 1 OF 18 CAPLUS COPYRIGHT 2007 ACS on STN

AN 2007:258084 CAPLUS

TI Sertraline acid addition salt, its preparation and its use in the preparation of sertraline hydrochloride Form II

IN Kintali, Ramana Venkata; Ludescher, Johannes; Nair, Raji; Sawant, Sudhir

PA India

SO U.S. Pat. Appl. Publ., 4pp.

CODEN: USXXCO

DT Patent

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE	
ΡI	US 2007054960	A1	20070308	US 2006-516395	20060906	
PRAI	GB 2005-18135	Α	20050906			

AB The present invention relates to novel acid addition salts of sertraline, their preparation and their use in the preparation of crystalline Form-II of Sertraline

hydrochloride.

IT 56-86-0, Glutamic acid 69-72-7, Salicylic acid 88-99-3, Phthalic acid 99-04-7, 3-Methyl benzoic acid 124-04-9, Adipic acid 611-71-2, R-Mandelic acid 7647-01-0, Hydrochloric acid 79617-96-2, Sertraline 254731-40-3

RL: RCT (Reactant); RACT (Reactant or reagent)

(sertraline acid addition salt, its preparation and its use in the preparation of

sertraline hydrochloride Form II)

L2 ANSWER 2 OF 18 CAPLUS COPYRIGHT 2007 ACS on STN

AN 2007:53929 CAPLUS

DN 146:162927

TI Process for the preparation of polymorphic crystalline sertraline hydrochloride form I and pharmaceutical dosage forms containing it

IN Borochovitz, Ronen; Shabat, Shalom

PA Teva Pharmaceutical Industries Ltd., Israel; Teva Pharmaceuticals Usa, Inc.

SO PCT Int. Appl., 14pp.

CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
					
ΡI	WO 2007008317	A2	20070118	WO 2006-US22500	20060609
	WO 2007008317	A3	20070308		

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AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH,
            CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD,
            GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR,
            KZ, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX,
            MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD,
        GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY,
            KG, KZ, MD, RU, TJ, TM
PRAI US 2005-689777P
                         Ρ
                               20050609
    A process for the preparation of sertraline HCl form I comprises: (A) heating
     sertraline HCl in n-butanol to about 400° to about reflux temperature;
     and (B) crystallizing the sertraline HCl.
     254731-40-3, Sertraline mandelate
     RL: RCT (Reactant); RACT (Reactant or reagent)
        (process for the preparation of polymorphic crystalline sertraline
hydrochloride
        form I and pharmaceutical dosage forms containing it)
L2
     ANSWER 3 OF 18 CAPLUS COPYRIGHT 2007 ACS on STN
AN
     2006:1070265 CAPLUS
     145:397248
DN
TI
     Neutralization process for preparing the crystal polymorphic form II of
     sertraline hydrochloride
IN
     Ludescher, Johannes; Wieser, Josef
PΑ
    Austria
SO
    U.S. Pat. Appl. Publ., 4pp.
     CODEN: USXXCO
DT
     Patent
LΑ
     English
FAN.CNT 1
                                         APPLICATION NO.
     PATENT NO.
                        KIND
                               DATE
                                                                 DATE
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                                                                 _____
                                          US 2006-396967
     US 2006229472
ΡI
                         A1
                               20061012
                                                                 20060403
PRAI GB 2005-7090
                         Α
                               20050407
     CASREACT 145:397248
OS
AB
     The crystalline polymorphic form II of sertraline hydrochloride is prepared by:
     (a) providing a solution or suspension of sertraline base or one of its salts
    (e.g., sertraline mandelate) in a solvent (e.g., acetonitrile); (b) adding
     a hydrochloride of an organic amide (e.g., dimethylacetamide hydrochloride)
     at 0-120°; and (c) isolating the crystalline solid polymorphic form II
     of sertraline hydrochloride.
ΙT
     920-54-7, Dimethylacetamide hydrochloride 16889-93-3,
    N-Methylpyrrolidone hydrochloride
                                       79617-96-2, Sertraline
     254731-40-3, Sertraline mandelate
     RL: RCT (Reactant); RACT (Reactant or reagent)
        (neutralization process for preparing the crystal polymorphic form II of
        sertraline hydrochloride)
L2
    ANSWER 4 OF 18 CAPLUS COPYRIGHT 2007 ACS on STN
    2006:904920 CAPLUS
AN
DN
     145:292733
TI
    Method for preparation of the crystalline polymorphic form II of
     sertraline hydrochloride
ΙN
     Reguri, Buchi Reddy; Kadaboina, Rajasekhar
PΑ
     Dr. Reddy's Lab. Ltd. , India
     Indian, 21 pp.
SO
     CODEN: INXXAP
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DT Patent

LA English

FAN.CNT 1

PATENT NO. KIND APPLICATION NO. DATE DATE ____ -----_____ _____ IN 2000-MA765 IN 192257 20040327 20000915 PΙ Α1 PRAI IN 2000-MA765 20000915

AB A method for the preparation of polymorphic crystalline form II of sertraline hydrochloride from any salt of Sertraline or from sertraline base comprises: (a) suspending the sertraline salt (mandelate or hydrochloride) in n-butanol, hexane, heptane, octane, nonane, cyclohexane, or their a mixts.; (b) adding an aqueous alkali solution to the suspension to obtain sertraline free base; (c) separating the aqueous layer from the biphasic mixture: (d)

optionally extracting the free base from the aqueous layer of step (c) by using a

solvent as defined in step (a) and mixing with the organic layer of step (c); (e) optionally diluting the organic layer of step (d) with n-butanol or hexane, heptane, octane, nonane, or cyclohexane; (f) acidifying the organic layer of step (e) with concentrate hydrochloric acid or gaseous hydrogen chloride or butanolic hydrogen chloride at 0-200° to obtain a sertraline hydrochloride suspension; (g) stirring the said suspension of step (f) at 0-300° for 10-36 h to obtain form II of sertraline hydrochloride in suspended form; and (h) filtering, washing, and drying the product.

IT 7647-01-0, Hydrogen chloride, reactions 254731-40-3, Sertraline mandelate

RL: RCT (Reactant); RACT (Reactant or reagent)

(in a method for preparation of the crystalline polymorphic form $\ensuremath{\text{II}}$ of sertraline

hydrochloride)

- L2 ANSWER 5 OF 18 CAPLUS COPYRIGHT 2007 ACS on STN
- AN 2005:581961 CAPLUS
- DN 143:59684
- TI X-ray diffraction of a polymorph of sertraline hydrochloride
- IN Antczak, Casimir G.; Wilson, Andrew Joseph
- PA Torcan Chemical Ltd., Can.
- SO Can. Pat. Appl., 17 pp.

CODEN: CPXXEB

DT Patent

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
ΡI	CA 2224387	A1	19990610	CA 1997-2224387	19971210
	CA 2224387	С	20010529		
PRAI GI	CA 1997-2224387	,	19971210		
-		•			

AB A novel polymorph of sertraline hydrochloride, i.e. (1S-cis)-4-(3,4-dichlorophenyl)-1,2,3,4-tetrahydro-N-methyl-1-naphthalenamine hydrochloride (I·HCl), is disclosed, having improved water solubility along with acceptable stability. It is characterized by a unique x-ray diffraction pattern and unit cell structure, as well as IR and NMR spectral characteristics.

IT 254731-40-3, Sertraline mandelate
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (acid addition salt conversion; x-ray diffraction of a polymorph of sertraline hydrochloride)

L2 ANSWER 6 OF 18 CAPLUS COPYRIGHT 2007 ACS on STN

AN 2005:474956 CAPLUS

DN 142:487606

TI Polymorphic forms of sertraline hydrochloride

PA Switz

SO U.S. Pat. Appl. Publ., 8 pp., Cont.-in-part of U.S. Ser. No. 736,195. CODEN: USXXCO

DT Patent

LA English

FAN.CNT 3

	PAT	ENT I	. OV			KIN	D	DATE		i	APPL:	I CAT	ION 1	NO.		D	ATE	
PI		2005						2005 2001									0040: 0001:	
		W:	ΑE,	AG,	AL,	AM,	AT,	AU,	AZ,	BA,	BB,	BG,	BR,	BY,	BZ,	CA,	CH,	CN,
			CR,	CU,	CZ,	DE,	DK,	DM,	DZ,	EE,	ES,	FI,	GB,	GD,	GE,	GH,	GM,	HR,
			ΗU,	ID,	IL,	IN,	IS,	JΡ,	ΚE,	KG,	KP,	KR,	ΚZ,	LC,	LK,	LR,	LS,	LT,
			LU,	LV,	MA,	MD,	MG,	MK,	MN,	MW,	MX,	MZ,	NO,	NZ,	PL,	PT,	RO,	RU,
			SD,	SE,	SG,	SI,	SK,	SL,	ТJ,	TM,	TR,	TT,	TZ,	UA,	UG,	US,	UZ,	VN,
			YU,	ZA,	ZW													
		RW:	GH,	GM,	ΚE,	LS,	MW,	MZ,	SD,	SL,	SZ,	TZ,	UG,	ZW,	AT,	BE,	CH,	CY,
			DE,	DK,	ES,	FI,	FR,	GB,	GR,	ΙE,	IT,	LU,	MC,	NL,	PT,	SE,	BF,	ВJ,
			CF,	CG,	CI,	CM,	GA,	GN,										
	US	68728	853			B1		2005	0329	1	US 2	002-	1119	47		2	0020	426
	US	2004	1328	28		A1		2004	0708	1	US 2	003-	7361	95		2	0031	215
	US	69399	992			B2		2005	0906									
PRAI	ΕP	1999	-810	981		Α		1999	1029									
	WO	2000	-EP1	0416		W		2000	1023									
	US	2002	-111	947		A1		2002	0426									
	US	2003	-736	195		A2		2003	1215									
os	MAR	RPAT :	142:	4876	06													

- AB An improved process for the preparation of sertraline hydrochloride polymorphic form II is described, which process comprises seeding a solution of sertraline free amine in a ketone with some crystals of polymorphic form II and addition of hydrogen chloride, and wherein the solution is heated before addition of the hydrogen chloride. According to the present process, the metastable form II may be obtained in a reliable way with good yield and high purity with respect to other polymorphic forms as well as preparative residues such as educts or solvents.
- L2 ANSWER 7 OF 18 CAPLUS COPYRIGHT 2007 ACS on STN
- AN 2004:625605 CAPLUS
- DN 143:77965
- TI Process for preparing sertraline
- IN Stohandl, Jiri; Frantisek, Jaroslav; Zapadlo, Zdenek; Stohandlova, Marta
- PA Ratiochem, S. R. O., Czech Rep.
- SO Czech Rep., 10 pp. CODEN: CZXXED
- DT Patent
- LA Czech
- FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE		
ΡI	CZ 292770	B6	20031217	CZ 2001-708	20010226		
	BG 108940	A	20060228	BG 2004-108940	20041118		
PRAI	CZ 2001-708	A	20010226	•			

- OS CASREACT 143:77965
- AB In the present invention, a process for preparing sertraline, a known antidepressant (no data), by reductive amination of a racemic 4-(3,4-dichlorophenyl)-3,4-dihydro-1(2H)naphthalenone, is disclosed. The preparation process is carried out in a single reaction vessel without isolation of intermediates. Pure cis- and trans-isomers of sertraline are separated Disclosed is also a conversion process of trans-isomer to cis-isomer, as well as preparation process of (1S)-cis-isomer polymorph.
- IT 79617-89-3P 79617-95-1P 79617-96-2P, Sertraline 79617-99-5P 254731-40-3P, Sertraline mandelate
 - RL: IMF (Industrial manufacture); SPN (Synthetic preparation); PREP (Preparation)
 - (process for preparing sertraline by reductive amination of a racemic 4-(3,4-dichlorophenyl)-3,4-dihydro-1(2H)naphthalenone)
- L2 ANSWER 8 OF 18 CAPLUS COPYRIGHT 2007 ACS on STN
- AN 2004:412910 CAPLUS
- DN 140:406641
- TI Process for the preparation of a polymorphic form of sertraline hydrochloride
- IN Nadkarni, Sunil Sadanand
- PA India
- SO PCT Int. Appl., 26 pp. CODEN: PIXXD2
- DT Patent
- LA English
- FAN. CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
ΡI	WO 2004041773	A1	20040521	WO 2003-IB4998	20031103
	WO 2004041773	B1	20040624		

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AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH,
              CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD,
              GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC,
              LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO,
              NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ,
         TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW

RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ,

BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE,

ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK,

TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG
     IN 2002CA00628
                            Α
                                   20040508
                                                IN 2002-CA628
                                                                         20021107
     AU 2003274608
                            A1
                                   20040607
                                                AU 2003-274608
                                                                         20031103
                                   20050803
                                                EP 2003-758583
     EP 1558561
                            Α1
                                                                         20031103
             AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
              IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK
                            Α
                                   20050927
                                               BR 2003-16032
                                                                         20031103
     US 2006167113
                            Α1
                                   20060727
                                                US 2005-534358
                                                                         20050509
PRAI IN 2002-CA628
                            Α
                                   20021107
     WO 2003-IB4998
                            W
                                   20031103
     A process for the preparation of a polymorphic form of sertraline salts (e.g.,
AR
     sertraline hydrochloride) is described by dissolving or suspending
     sertraline mandelate in a solvent, reducing the pH of the solution or the
     suspension, and isolating the polymorphic salt of sertraline.
IT
     7647-01-0, Hydrogen chloride, reactions 254731-40-3, Sertraline
     mandelate
     RL: RCT (Reactant); RACT (Reactant or reagent)
         (in a process for the preparation of a polymorphic form of sertraline
        hydrochloride)
     ANSWER 9 OF 18 CAPLUS COPYRIGHT 2007 ACS on STN
L2
AN
     2004:340669 CAPLUS
DN
     141:56052
     A New and Simplified Process for Preparing N-[4-(3,4-Dichlorophenyl)-3,4-
     dihydro-1(2H)-naphthalenylidene] methanamine and a Telescoped Process for
     the Synthesis of (1S-cis)-4-(3,4-Dichlorophenol)-1,2,3,4-tetrahydro-N-
     methyl-1-naphthalenamine Mandelate: Key Intermediates in the Synthesis of
     Sertraline Hydrochloride
     Taber, Geraldine P.; Pfisterer, David M.; Colberg, Juan C.
ΑU
     Pfizer Global Research and Development, Groton, CT, 06340, USA
CS
     Organic Process Research & Development (2004), 8(3), 385-388
SO
     CODEN: OPRDFK; ISSN: 1083-6160
PΒ
     American Chemical Society
DT
     Journal
LΑ
     English
OS
     CASREACT 141:56052
     N-[4-(3,4-Dichlorophenyl)-3,4-dihydro-1(2H)-naphthalenylidene]methanamine,
AΒ
     sertraline imine (I), is an intermediate for the synthesis of Zoloft,
     sertraline hydrochloride. A cleaner, simpler, and more efficient
     alternative to the Schiff base-mediated formation of sertraline imine was
     developed and is presented. The condensation reaction between
     4-(3,4-dichlorophenyl)-3,4-dihydro-1(2H)-naphthalone, sertraline tetralone
     and monomethylamine was carried out in ethanol, without the need for
     classical dehydrating agent, such as TiCl4, or more novel approaches, such
     as mol. sieves, both of which produce hazardous byproducts and solid
     wastes. The low solubility of the imine I in this type of solvent is
     exploited, such that the reaction equilibrium favorably enhances the imine
     formation. Furthermore, an improved and highly selective catalytic reduction
     of I with Pd/CaCO3 catalyst in ethanol as the reaction solvent, followed
     by the resolution of the racemic cis isomer with D-(-)-mandelic acid results
     in a more efficient telescoped com. process to (1S-cis)-4-(3,4-
```

dichlorophenol)-1,2,3,4-tetrahydro-N-methyl-1-naphthalen-amine mandelate,

sertraline mandelate. This new process was implemented com. and eliminates the use of hazardous material such as TiCl4, significantly reduces undesirable byproducts, reduces the number of intermediate isolations, and improves the overall process yield and productivity on industrial scale.

RE.CNT 12 THERE ARE 12 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

IT 79560-20-6P, N-[4-(3,4-Dichlorophenyl)-3,4-dihydro-1(2H)naphthalenylidene]methanamine 254731-40-3P, (1S-cis)-4-(3,4Dichlorophenol)-1,2,3,4-tetrahydro-N-methyl-1-naphthalenamine mandelate
RL: IMF (Industrial manufacture); PREP (Preparation)

(simplified process for preparation sertraline imine and telescoped process for preparation of sertraline mandelate as key intermediates in synthesis of sertraline hydrochloride)

- L2 ANSWER 10 OF 18 CAPLUS COPYRIGHT 2007 ACS on STN
- AN 2004:101117 CAPLUS
- DN 140:163588
- TI Neutralization process for the preparation crystalline sertraline free base from sertraline salts
- IN Rao, Dharmaraj Ramachandra; Kankan, Rajendra Narayanrao; Narayan, Bhanu M.
- PA Cipla Limited, India; Wain, Christopher Paul
- SO PCT Int. Appl., 13 pp.
- CODEN: PIXXD2
- DT Patent
- LA English

FAN.CNT 1

TAN. CNI I																	
	PATENT NO.			KIN	KIND DATE AP			APPLICATION NO.				DATE					
PI,	WO 20	040114	13		A1		2004	0205	WO 2003-GB3161						20030722		
	W	: AE,	AG,	AL,	AM,	ΑT,	AU,	AZ,	BA,	BB,	BG,	BR,	BY,	BZ,	CA,	CH,	CN,
		CO,	CR,	CU,	CZ,	DE,	DK,	DM,	DZ,	EC,	EE,	ES,	FI,	GB,	GD,	GE,	GH,
		GM,	HR,	HU,	ID,	IL,	IN,	IS,	JP,	KΕ,	KG,	KR,	ΚZ,	LC,	LK,	LR,	LS,
		LT,	LU,	LV,	MA,	MD,	MG,	MK,	MN,	MW,	MX,	MZ,	NO,	NZ,	OM,	PH,	PL,
		PT,	RO,	RU,	SC,	SD,	SE,	SG,	SK,	SL,	ТJ,	TM,	TN,	TR,	TT,	TZ,	UA,
		UG,	US,	UŻ,	VC,	VN,	YU,	ZA,	ZM,	zw							
	R	W: GH,	GM,	KΕ,	LS,	MW,	MZ,	SD,	SL,	SZ,	TZ,	UG,	ZM,	ZW,	AM,	ΑZ,	BY,
		KG;	KZ,	MD,	RU,	TJ,	TM,	AT,	ΒE,	BG,	CH,	CY,	CZ,	DE,	DK,	EE,	ES,
		FI,	FR,	GB,	GR,	HU,	ΙE,	ΙT,	LU,	MC,	NL,	PT,	RO,	SE,	SI,	SK,	TR,
		BF,	ВJ,	CF,	CG,	CI,	CM,	GΑ,	GN,	GQ,	GW,	ML,	MR,	ΝE,	SN,	TD,	TG
	AU 20	032544	75		A1		2004	0216	i	AU 2	003-	2544	75		2	0030	722
	IN 20	05MN00	045		Α		2005	1111		IN 2	005-1	MN45			2	0050	117
PRA	I GB 20	02-174	88		Α		2002	0729									
	GB 20	03-117	18		Α		2003	0521									
	WO 20	03-GB3	161		W		2003	0722									
						_	_		_	-							_

- AB Crystalline sertraline free base is made by treating a sertraline salt (e.g., sertraline hydrochloride) with a base (e.g., aqueous NaOH) and recovering the sertraline base in crystalline form which may be used in a variety of pharmaceutical dosage form.
- RE.CNT 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT
- IT 79559-97-0, Sertraline hydrochloride 254731-40-3, Sertraline mandelate
 - RL: RCT (Reactant); RACT (Reactant or reagent)

(neutralization process for the preparation crystalline sertraline free base from $% \left(1\right) =\left(1\right) +\left(1\right) +$

sertraline salts)

- L2 ANSWER 11 OF 18 CAPLUS COPYRIGHT 2007 ACS on STN
- AN 2003:892739 CAPLUS
- DN 139:369756

English

PATENT NO.

LΑ

FAN.CNT 4

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ΤI
      Process for the preparation of polymorphic form II of sertraline
     hydrochloride, pharmaceutical formulations and pharmaceutical dosage forms
IN
      Borochovitch, Ronen; Mendelovici, Marioara; Nidam, Tamar; Tenengauzer,
      Ruth; Hrakovsky, Julia; Aronhime, Judith
PΑ
      Teva Pharmaceutical Industries Ltd., Israel; Teva Pharmaceuticals USA,
SO
      PCT Int. Appl., 30 pp.
      CODEN: PIXXD2
DT
      Patent
ΤιA
      English
FAN.CNT 1
                                           APPLICATION NO.
      PATENT NO.
                         KIND
                                                                  DATE
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                                          WO 2003-US13438
ΡI
     WO 2003093217
                         A1
                                20031113
                                                                  20030429
          W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,
              CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,
             GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR,
              LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM,
              PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT,
              TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
          RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY,
              KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES,
              FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR,
             BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG
      CA 2483569
                          Α1
                                 20031113
                                            CA 2003-2483569
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     AU 2003251290
                          A1
                                 20031117
                                            AU 2003-251290
                                                                   20030429
     US 2004030190
                          Α1
                                 20040212
                                            US 2003-426468
                                                                   20030429
     US 6897340
                          B2
                                 20050524
     EP 1499581
                          A1
                                20050126
                                            EP 2003-747621
                                                                   20030429
             AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
              IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK
      US 2005209342
                          A1
                                20050922 · US 2005-129015
PRAI US 2002-376787P
                          Ρ
                                 20020429
     US 2003-426468
                          A1
                                 20030429
                          W
     WO 2003-US13438
                                 20030429
AB
      Processes for preparation of crystalline sertraline hydrochloride form II
      substantially free of other polymorphic forms of sertraline hydrochloride,
     preferably on an industrial scale, are presented along with X-ray
     diffraction patterns of the title crystal polymorph.
RE.CNT
              THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD
              ALL CITATIONS AVAILABLE IN THE RE FORMAT
      254731-40-3, Sertraline mandelate
IT
      RL: RCT (Reactant); RACT (Reactant or reagent)
         (process for preparation of polymorphic form II of sertraline hydrochloride
         and pharmaceutical dosage forms containing it)
L2
     ANSWER 12 OF 18 CAPLUS COPYRIGHT 2007 ACS on STN
     2003:585540 CAPLUS
AN
DN
     139:138740
TI
     Crystallization and hydrogen chloride-neutralization methods for the
     preparation of sertraline hydrochloride crystal polymorphs
IN
     Schwartz, Eduard; Nidam, Tamar; Liberman, Anita; Mendelovici, Marioara;
     Aronhime, Judith; Singer, Claude; Valdman, Evgeni
PA
     Teva Pharmaceutical Industries Ltd., Israel
SO
     U.S., 25 pp., Cont.-in-part of U.S. 6,500,987.
     CODEN: USXXAM
DT
     Patent
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DATE

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PΙ
     US 6600073
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     US 2001041815
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                                   20011115
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                                   20030626
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                                                                         20011213
              AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,
              CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH,
              PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW
          RW: GH, GM, KE, LS; MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY,
              KG, KZ, MD, RU, TJ, TM, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB,
              GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA,
              GN, GQ, GW, ML, MR, NE, SN, TD, TG
     AU 2002228933
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                                   20041006
                                               EP 2001-990059
                                                                         20011213
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              IE, SI, LT, LV, FI, RO, MK, CY, AL, TR
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                                                CN 2001-823948
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                                   20050329
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     JP 2005511780
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                                                JP 2003-552706
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     CN 1891681
                           Α
                                   20070110
                                                CN 2006-10082414
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                                                US 2002-218863
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PRAI US 1999-448985
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                                   20000320
     CN 2001-823948
                            A3
                                   20011213
     WO 2001-US47546
                            W
                                   20011213
     US 2002-218863
                           B1
                                   20020813
     Crystallization and neutralization methods for the preparation of sertraline
AB
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AB Crystallization and neutralization methods for the preparation of sertraline hydrochloride crystal polymorph forms III, V, VI, VII, VII, IX, and X are presented. According to the present invention, sertraline hydrochloride Form III may be produced by heating sertraline hydrochloride Forms V and VI. Sertraline hydrochloride Forms V and VI may be produced from either sertraline hydrochloride or sertraline base by crystallization. Sertraline hydrochloride Form VII may be produced by suspending sertraline hydrochloride polymorph V in water, followed by filtration. Sertraline hydrochloride Forms VIII and IX may be produced by suspending sertraline base in water followed by acidification and filtration.

RE.CNT 14 THERE ARE 14 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

IT 254731-40-3, Sertraline mandelate

RL: RCT (Reactant); RACT (Reactant or reagent)

(crystallization and hydrogen chloride-neutralization methods for the preparation of

sertraline hydrochloride crystal polymorphs using)

NO 2004002932

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L2
    ANSWER 13 OF 18 CAPLUS COPYRIGHT 2007 ACS on STN
AN
     2002:960678 CAPLUS
DN
     138:29222
ΤI
     Preparation of sertraline hydrochloride Form II
     Schwartz, Eduard; Nidam, Tamar; Liberman, Anita; Mendelovici, Marioara;
ΤN
     Aronhime, Judith
PΑ
     Teva Pharmaceutical Industries Ltd., Israel
SO
    U.S., 9 pp., Cont.-in-part of U.S. Ser. No. 448,985.
     CODEN: USXXAM
DT
     Patent
LА
    English
FAN.CNT 4
     PATENT NO.
                                         APPLICATION NO.
                      KIND DATE
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                               20041006
                                         EP 2001-990059
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                                          JP 2003-552706
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                               20021205
                                          US 2002-198546
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    US 2003055112
                                          US 2002-218863
                              20030320
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A1
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A
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20040712

NO 2004-2932

20040712

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PRAI US 1999-147888P
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                               19991124
    US 2000-182159P
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    US 1998-110113P
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                               19991221
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    US 2000-190603P
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    WO 2001-US47546
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    US 2002-198546
                       · A1
                               20020718
                         В1
    US 2002-218863
                               20020813
    US 2004-861271
                         Α1
                               20040604
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AB Sertraline hydrochloride form II may be produced directly form sertraline base or sertraline mandelate. It may also be produced from sertraline hydrochloride solvate and hydrate forms, and crystallized from new solvent systems. Pharmaceutical compns. containing sertraline hydrochloride Form II and methods of treatment using such pharmaceutical compns. are also disclosed.

RE.CNT 9 THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

- L2 ANSWER 14 OF 18 CAPLUS COPYRIGHT 2007 ACS on STN
- AN 2001:769394 CAPLUS
- DN 135:293946
- TI Sertraline and its salts for treating mammal premature ejaculation
- IN Xu, Jing
- PA Harbin Jiandi Medicine Science and Technology Development Co., Ltd., Peop. Rep. China
- SO Faming Zhuanli Shenqing Gongkai Shuomingshu, 14 pp. CODEN: CNXXEV
- DT Patent
- LA Chinese

neutralizing

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE		
ΡI	CN 1285345	Α	20010228	CN 2000-124758	20000915		
	CN 1091096	В	20020918				
PRAI	CN 2000-124758		20000915				

AB Sertraline or its salt is used for treating mammal premature ejaculation. The sertraline salt is citrate, HCl, mandelate, or sulfate. The sertraline salt is prepared from mandelate by dissolving in Et acetate-water (1:1), regulating with 50% NaOH to pH 9-10, standing for 20 min, separating, extracting aqueous phase with Et acetate thrice, washing with water,

with citric acid, HCl, or H2SO4, crystallizing, and drying in vacuum. A tablet or capsule is prepared from sertraline citrate 54.24, Na2HPO4 10, microcryst. cellulose 25, hydroxypropyl cellulose 3, CMC-Na 4, low substituted hydroxypropyl cellulose 2.76, and Mg stearate 1%.

IT 79559-97-0, Sertraline hydrochloride 254731-40-3, Sertraline
mandelate 365431-81-8 365431-84-1

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(sertraline and its salts for treating mammal premature ejaculation)

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L2
     ANSWER 15 OF 18 CAPLUS COPYRIGHT 2007 ACS on STN
ΑN
     2001:167954 CAPLUS
DN
     134:207602
     A reductive amination process for the preparation of cis-(1S,4S)-N-methyl-
TI
     4-(3,4-dichlorophenyl)-1,2,3,4-tetrahydro-1-naphthaleneamine hydrochloride
     from 4-(3,4-dichlorophenyl)-3,4-dihydro-1-(2H)-naphthalenone and
     methylamine and hydrogen
     Vyas, Sharad Kumar
IN
PA
     India
SO
     PCT Int. Appl., 23 pp.
     CODEN: PIXXD2
DT
     Patent
     English
LΑ
FAN.CNT 1
     PATENT NO.
                         KIND
                                 DATE
                                             APPLICATION NO.
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PΙ
     WO 2001016089
                         A:1
                                 20010308
                                           WO 2000-IB1182
         W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,
             CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR,
             HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT,
             LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU,
             SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN,
             YU, ZA, ZW
         RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ,
             CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
     IN 185109
                          Α1
                                 20001118
                                             IN 1999-CA748
                                                                     19990901
PRAI IN 1999-CA748
                          Α
                                 19990901
     CASREACT 134:207602
OS
     There is disclosed a process for the preparation of
cis-(1S,4S)-N-methyl-4-(3,4-
     dichlorophenyl)-1,2,3,4-tetrahydro-1-naphthaleneamin hydrochloride (i.e.,
     sertraline hydrochloride) and the intermediate cis-N-methyl-4-(3,4-
     dichlorophenyl)-1,2,3,4-tetrahydro-1-naphthaleneamine hydrochloride, which
     comprises the reductive amination of 4-(3,4-dichlorophenyl)-3,4-dihydro-1-
     (2H) -naphthalenone with methylamine and hydrogen in the presence of a
     catalyst such as Raney Nickel to produce the intermediate amine, treating
     that amine with hydrogen chloride to produce the corresponding cis- and
     trans-amine hydrochloride salts, isolating and purifying the amine
     hydrochloride mixture to obtain the intermediate cis-amine hydrochloride,
     and converting the cis-amine hydrochloride into cis-(1S,4S)-N-methyl-4-
     (3,4-dichlorophenyl)-1,2,3,4-tetrahydro-1-naphthaleneamin hydrochloride.
              THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD
              ALL CITATIONS AVAILABLE IN THE RE FORMAT
IT
     140631-53-4P 254731-40-3P, Sertraline mandelate
     RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
     (Reactant or reagent)
        (reductive amination process for the preparation of cis-(1S,4S)-N-methyl-4-
        (3,4-dichlorophenyl)-1,2,3,4-tetrahydro-1-naphthaleneamine
        hydrochloride from 4-(3,4-dichlorophenyl)-3,4-dihydro-1-(2H)-
        naphthalenone and methylamine and hydrogen using)
L2
     ANSWER 16 OF 18 CAPLUS COPYRIGHT 2007 ACS on STN
AN
     2000:876764 CAPLUS
DN
     134:41980
ΤI
     Process for preparing the (+) enantiomer of N-[4-(3,4-dichlorophenyl)-3,4-
     dihydro-1(2H)-naphthalenylidene] methanamine from the (+) enantiomer of
     4-(3,4-dichlorophenyl)-3,4-dihydro-1(2H)-naphthalenometetralone
IN
     Quallich, George Joseph
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PΑ Pfizer Products Inc., USA SO Eur. Pat. Appl., 11 pp. CODEN: EPXXDW

Patent

DTLΑ English

FAN.CNT 1

L'AIV.				10011010101110	D
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
					
ΡI	EP 1059287	A1	20001213	EP 2000-304724	20000605
	R: AT, BE, CH,	DE, DK	, ES, FR,	GB, GR, IT, LI, LU, NL,	SE, MC, PT,
	IE, SI, LT,	LV, FI	, RO		
	US 6593496	B1	20030715	US 2000-584009	20000530
	IN 186949	A1	20011215	IN 2000-MU503	20000531
	JP 2000351758	Α	20001219	JP 2000-167473	20000605
	JP 3529703	B2	20040524		
	CA 2310799	A1	20001209	CA 2000-2310799	20000607
	CA 2310799	С	20040504		
	TR 200001657	A2	20010122	TR 2000-1657	20000607
	AU 767319	B2	20031106	AU 2000-39345	20000607
	CN 1277188	A	20001220	CN 2000-118079	20000608
	RU 2181358	C2	20020420	RU 2000-114587	20000608
	HU 200002229	A2	20020429	HU 2000-2229	20000608
	BR 2000002606	A	20010102	BR 2000-2606	20000609
PRAI	US 1999-138340P	P	19990609	2.000 2000	2000000
OS	CASREACT 134:41980		100000		
GI	CASKEACT 134:41900				
GI					

AΒ This invention relates to a novel improved process for preparing the (+) enantiomer of N-[4-(3,4-dichlorophenyl)-3,4-dihydro-1(2H)naphthalenylidene] methanamine (I), an intermediate in the manufacture of sertraline, by reacting the (+) enantiomer of 4-(3,4-dichlorophenyl)-3,4dihydro-1(2H)-naphthalenone (II) with monomethylamine and titanium chloride or mol. sieves. Subsequent I hydrogenation and salification-resolution leads to the preparation of a sertraline III salt. RE.CNT 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD

ALL CITATIONS AVAILABLE IN THE RE FORMAT

EP 1637516

IE, FI, CY

Α1

20060322

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,

EP 2005-24398

79559-97-0P, Sertraline hydrochloride 254731-40-3P IT RL: SPN (Synthetic preparation); PREP (Preparation) (process for preparing the (+) enantiomer of N-[4-(3,4-dichlorophenyl)-3,4dihydro-1(2H)-naphthalenylidene] methanamine from the (+) enantiomer of 4-(3,4-dichlorophenyl)-3,4-dihydro-1(2H)-naphthalenonetetralone) L2 ANSWER 17 OF 18 CAPLUS COPYRIGHT 2007 ACS on STN AN 2000:384116 CAPLUS DN 133:22449 Sertraline hydrochloride polymorphs ΤI IN Schwartz, Eduard; Nidam, Tamar; Liberman, Anita; Mendelovici, Marioara; Aronheim, Jehudit; Singer, Claude; Valdman, Evgeni PA Teva Pharmaceutical Industries Ltd., Israel; Teva Pharmaceuticals Usa, Inc. SO PCT Int. Appl., 63 pp. CODEN: PIXXD2 DT Patent LΑ English FAN.CNT 4 PATENT 'NO. KIND DATE APPLICATION NO. ----**-** - - - - - ------A1 WO 2000032551 WO 1999-US27881 PΙ 20000608 19991124 W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG AU 200016336 Α 20000619 AU 2000-16336 19991124 EP 1133459 A1 20010919 EP 1999-959091 19991124 EP 1133459 В1 20060111 AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, CY JP 2002531427 Т 20020924 JP 2000-585193 19991124 AT 315544 Т 20060215 AT 1999-959091 19991124 EP 1630156 A1 20060301 EP 2005-24394 19991124 AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI, CY EP 1632472 A1 20060308 EP 2005-24395 19991124 AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI, CY EP 1632473 20060308 EP 2005-24396 **A1** 19991124 R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI, CY EP 1632474 A1 20060308 EP 2005-24400 19991124 R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI, CY EP 1632475 A1 20060308 EP 2005-24401 AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI, CY A1 · 20060315 EP 2005-24399 AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI, CY EP 1637515 A1 20060322 EP 2005-24397 AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI, CY

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                        Α
     IN 2004DN01522
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AΒ The present invention is directed to forms II, III, V, VI, VII, VIII, IX and X of sertraline-HCl and novel methods for their preparation According to the present invention, sertraline-HCl polymorph II may be produced by slurrying sertraline-HCl polymorph VI in aprotic organic solvent. Sertraline-HCl polymorphic form III may be produced by heating sertraline-HCl polymorphs V and VI. Sertraline-HCl forms V and VI may be produced from either sertraline-HCl or sertraline base by crystallization Sertraline-HCl form VII may be produced by suspending sertraline chloride polymorph V in water, followed by filtration. Sertraline-HCl forms VIII and IX may be produced by suspending sertraline base in water followed by acidification and filtration. Sertraline-HCl form X may be produced by suspending sertraline-HCl in benzyl alc. with heating, followed by filtration. Sertraline mandelate was mixed with EtOAc and aqueous sodium hydroxide was added until the sertraline mandelate was completely neutralized. The solvent was removed under reduced pressure resulting in sertraline base as an oil. The sertraline base was dissolved in methanol and acidified with HCl until pH 1.5 was reached. The slurry was allowed to cool to room temperature and stirred for about 2 h. The solid was separated by

filtration to give sertraline-HCl methanolate-Form VI. Drying the product overnight gave sertraline-HCl form V.

RE.CNT 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

IT 254731-40-3, Sertraline mandelate

RL: RCT (Reactant); RACT (Reactant or reagent)
 (sertraline hydrochloride polymorphs)

- L2 ANSWER 18 OF 18 CAPLUS COPYRIGHT 2007 ACS on STN
- AN 2000:59120 CAPLUS
- DN 132:93108
- TI Preparation of sertraline hydrochloride methanolate and ethanolate as antidepressants
- IN Miyamoto, Hideto; Sugi, Kiyoshi; Itaya, Nobushiqe
- PA Sumika Fine Chemicals Co., Ltd., Japan
- SO Jpn. Kokai Tokkyo Koho, 9 pp.

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DT Patent LA Japanese

FAN.CNT 1

	PATENT NO.	KIND DATE		APPLICATION NO.	DATE	
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AB Sertraline (I) hydrochloride methanolate showing x-ray diffraction peaks at $2\theta=12.3$, 17.8, 22.0, 23.4, and 24.8°, and I.HCl ethanolate showing the peaks at $2\theta=12.1$, 17.5, 21.9, 22.9, and 24.2° are prepared by treatment of I with HCl (gas) in MeOH or EtOH, resp. The solvates, useful as antidepressants (no data), show high bulk d. and are filtered out in a short time unlike I.HCl.

IT 254731-40-3, Sertraline mandelate

RL: RCT (Reactant); RACT (Reactant or reagent)
 (preparation of sertraline hydrochloride methanolate or ethanolate as
 antidepressants)